

Unit 1: Sequences and Functions

PRACTICE · SET 2

Name: _____ Date: _____

Find the requested value for each sequence. Write your final answer as a single number.

1. An arithmetic sequence has first term $a_1 = 4$ and common difference $d = 3$. Find the 10th term.

Answer: _____

2. An arithmetic sequence is defined by $a(n) = 7 + (n - 1)(5)$. Find $a(12)$.

Answer: _____

3. In an arithmetic sequence, $a_3 = 11$ and $a_7 = 27$. Find the common difference d .

Answer: _____

4. A geometric sequence has first term $g_1 = 5$ and common ratio $r = 2$. Find the 6th term.

Answer: _____

5. A geometric sequence has $g_1 = 3$ and $g_4 = 24$. Find the common ratio r .

Answer: _____

6. A geometric sequence is defined by $g(n) = 2 \times 3^{(n - 1)}$. Find $g(4)$.

Answer: _____

7. An arithmetic sequence has first term 20 and common difference -4. Find the 8th term.

Answer: _____

8. The arithmetic sequence 2, 5, 8, 11, ... continues with the same pattern. Find the 25th term.

Answer: _____

9. The geometric sequence 81, 27, 9, ... continues with the same pattern. Find the 5th term.

Answer: _____

10. Find the common ratio of the geometric sequence 3, 6, 12, 24, ...

Answer: _____

11. An arithmetic sequence is given by $a(n) = -5 + 2(n - 1)$. For what term number n does $a(n) = 15$?

Answer: _____

12. A geometric sequence is modeled by the exponential function $f(x) = 100 \times (1.5)^x$. Find $f(2)$.

Answer: _____